

FEMTO

Z8 NEO



The Swiss Platform That Delivers It All

The all-in-one laser platform powering
refractive, therapeutic, and cataract surgery.



We Deliver
Vision to the World

ziemer 
OPHTHALMOLOGY

Premium Solution. Future-Proof.

Designed to Meet the
Highest Standards in
Ophthalmic Care.



- New-Generation Applications
- Advanced Ergonomics
- Whisper Mode Technology
- Clear-White Sophisticated Design
- Swiss Designed, Swiss Assembled
- Supra Technology Enabled



The All-In-One Laser Platform

The FEMTO Z8 NEO can be customized with applications tailored to your needs. More applications can be added to your laser as your practice and technology evolve. It is the perfect partner for Refractive, Therapeutic and Cataract surgery.

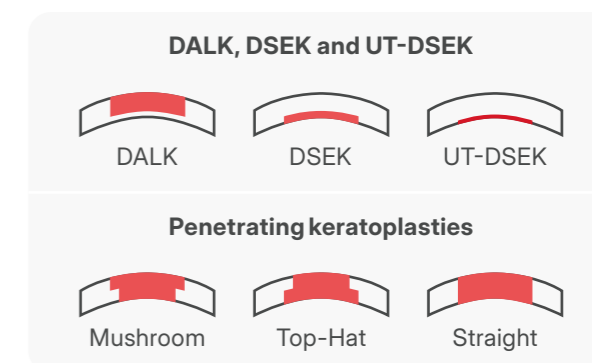
Refractive Surgery

Refractive options include our established LASIK Supra procedure or the CLEAR Supra procedure, which provides enhanced convenience for guided lenticule extraction.



Therapeutic Surgery

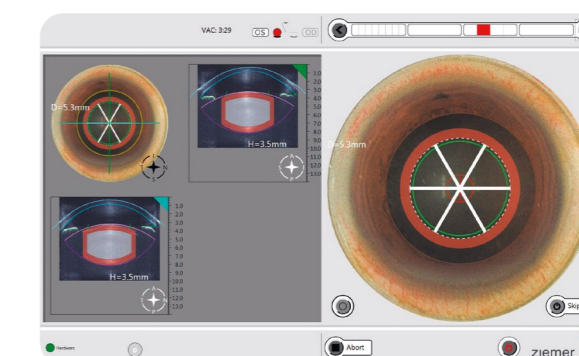
Choose from a range of therapeutic corneal procedures, including Ring Tunnels/ Segments and Keratoplasty techniques such as lamellar Keratoplasties (DALK, DSEK, UT-DSEK) and penetrating Keratoplasties (mushroom, top-hat, straight).



Cataract Surgery

FEMTO Z8 NEO can be used for a complete laser-assisted cataract pre-treatment including:

- Lens Fragmentation
- Capsulotomy
- Clear Corneal Incisions
- Arcuate Incisions
- Toric Marker



The Surgical Advantage

Truly Mobile

The compact, fully mobile design with a flexible articulated arm allows seamless use across multiple operating rooms and even clinical sites.



Remote Support

Fast support and troubleshooting to help minimize downtime.

Perfect technology brought together in one outstanding multi-purpose laser platform

FlowSuite

With FlowSuite, fully integrated laser eye surgery reaches a new level, allowing practitioners to optimize each stage of their ophthalmic workflow within a seamlessly connected digital platform.

SUPRA Technology

SUPRA is designed to accelerate innovation. Its modern platform enables rapid deployment of new features, streamlined workflows, and continuous performance enhancements. SUPRA isn't just an upgrade, it preserves value and is an investment in longevity.

Improved Performance

Across Refractive, Therapeutic and Cataract surgery — featuring CLEAR Supra, LASIK Supra, and CLARIGS.

Perfect Fit

The Slim Handpiece puts the procedure in your hands. It's lightweight design conforms easily to the eye and delivers an excellent docking experience.

Increased Efficiency

The intraoperative OCT and TopView Imaging aides in surgical predictability.

Easy Navigation

Touch screen, user-friendly software interface with an intuitive design ensures smooth and efficient operation.

The FEMTO Z8 NEO Precision. Innovation. Performance.

The multipurpose laser platform FEMTO Z8 NEO represents another standard of innovation and quality. It is the result of visionary designed solutions and performance driven engineering at Ziemer Ophthalmology. Together with the intuitive software and new-generation applications, the innovative FEMTO Z8 NEO results in an outstanding multipurpose laser platform for highly precise and exceptional ophthalmic treatments.

SMALL



Designed for true mobility, the FEMTO Z8 NEO combines a unique laser architecture with a highly flexible, intuitive articulated arm, allowing effortless integration into your surgical workflow. Compact, maneuverable, and ready for multi-site use.



SMART

Increased flexibility on demand. The FEMTO Z8 NEO is the perfect platform to perform a variety of ophthalmic treatments: Refractive, Therapeutic or Cataract procedures as needed.

SWISS



Improved precision focused on the essentials: brilliant performance, perfect monitoring, excellent usability and gentle eye surgery. Made in Switzerland.

SMALL

Enhanced Mobility for Your Workflow

The FEMTO Z8 NEO is a truly flexible, multipurpose laser platform. With its exquisite components, the optimized software and the finest ophthalmic applications, it represents the perfect partner for Refractive, Therapeutic and Cataract surgery.



— Truly Mobile

The FEMTO Z8 NEO is equipped with wheels for easy mobility, allowing it to be moved effortlessly wherever needed. The laser can be conveniently brought into the surgical theatre, rolled into the OR when required, and moved out again to another OR or even a different office as needed.



— Easy Handling

The laser can be shut down and stored away when not in use. The handle design makes moving the laser even easier. The calibration is done automatically with every start-up so it only needs to be switched on when it is needed.



— Patient Safety and Comfort

The FEMTO Z8 NEO ensures maximum safety and comfort for both surgeon and patient. The entire laser, along with its flexible articulated arm, moves effortlessly to the patient, eliminating transfers and saving OR time¹.

Its slim handpiece and patient interface provide an excellent docking experience for surgeons and patients. The FEMTO Z8 NEO is also the perfect partner for pediatric Cataract surgery².

With the Whisper Mode Kit, the perceived device sound is reduced by up to 50%. This is achieved through intelligent airflow control and an advanced fan system that lowers ambient noise by up to 9 dB, redefining comfort in the operating room.



SMART

Increased Flexibility on Demand

The FEMTO Z8 NEO is a truly flexible, multipurpose laser platform. With its Swiss engineered componentry, the optimized software and the finest ophthalmic applications, it represents the perfect partner for Refractive, Therapeutic and Cataract surgery.



Flexibility on Demand

The FEMTO Z8 NEO is capable of performing Refractive, Therapeutic and Cataract surgeries. Its advanced software helps to plan and organize your treatments for an efficient workflow. It offers multiple applications that can be customized for your surgical needs and it grows as your practice and technology advances.



SUPRA Technology & Other Innovative Applications

LASIK Supra: Refined energy settings and optimized cut parameters in the FEMTO Z8 NEO produce flaps with superior cut quality.

CLEAR Supra: A proprietary lenticule application for refractive correction. This minimally invasive procedure provides precise centration and cyclotorsion compensation options, offering more convenience for guided lenticule extraction while maintaining the highest safety standards.

CLARIGS (Cataract): Enhanced cutting trajectories deliver faster procedure times. New features include toric markers and cyclotorsion compensation.



Ring Tunnels/Segments: Customizable segments and tunnel procedures, integrating all corneal allogenic and PMMA implantations in one laser platform.

Large Tunnel: Wider, customized tunnels designed to unlock new surgical possibilities.

Ziemer FlowSuite

The Ziemer FlowSuite elevates the future of refractive and cataract surgery by creating a fully connected digital platform. It seamlessly links Ziemer diagnostic and surgical devices through an intuitive interface, optimizing every step of the ophthalmic workflow. By streamlining this workflow, FlowSuite empowers surgeons to deliver exceptional patient care while enhancing overall clinic efficiency.



SWISS

Improved Precision – Entirely Swiss Made

Precision focused on the essentials: brilliant performance, perfect monitoring and an excellent usability. The FEMTO Z8 NEO uses low energy pulses in the nanojoule range and a high pulse repetition rate. This results in extremely high precision and enables gentle eye surgery. Made in Switzerland.



— Ultra-Precise Laser Delivery System

Equipped with unique high-quality optics, the FEMTO Z8 NEO offers the exceptional precision you would expect from a Swiss laser. The new Laser Monitoring System allows the laser to work efficiently in different operating room environments on the same day.



— Low Energy Concept

The Ziemer handpiece is exclusively designed to have a very short working distance to the eye. This results in a high focusing power with very little energy per pulse needed. Small overlapping spots create a smooth³ resection – only possible with the Ziemer Low Energy Concept.



— Increased Surgical Efficiency (OCT)

The FEMTO Z8 NEO model offers a faster intraoperative OCT (Optical Coherence Tomography) scan. Enhanced eye structure detection (iris, lens, cornea) enables more precise resections. The improved workflow increases efficiency, saves valuable time, and creates a less stressful experience for the patient.

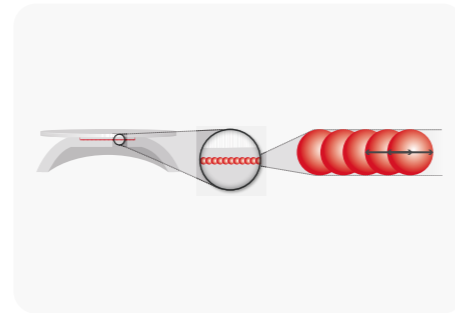


Pioneers of Low Energy

Ziemer is the low energy pioneer. The FEMTO Z8 NEO utilizes low energy pulses in the nanojoule range combined with a high pulse repetition rate. This results in extremely high precision, gentle treatments and enables complete and smooth resections.

Overlapping Laser Spots

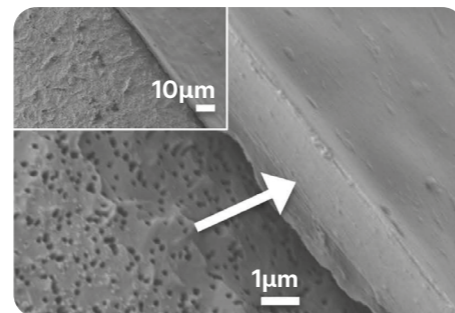
- Overlapping laser spots for complete and smooth resection
- Low energy per pulse in the nJ range for gentler treatments
- High repetition rate in the MHz range for fast procedures



Dense spacing of the laser pulses results in overlapping spots

High-Density Pulse Raster

- Complete resections free of tissue bridges^{4,5}
- Smooth stromal beds⁶
- High precision and predictability⁷
- Capsule edges that are hard to distinguish from edges seen in conventional surgery⁸



FEMTO Z8 Neo created capsule edge morphology in human eye

Tissue-Adapted Pulse Management

Due to the intelligent pulse management system, the power is put where it is needed:

- Lower power in the cornea (e.g. LASIK Supra, CLEAR Supra)
- Higher power in the lens (e.g. dense cataracts)



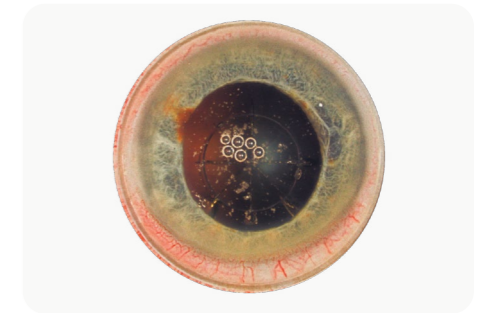
The unique design of the handpiece enables a short working distance to the eye

A Closer Look Image-Guided Surgery

The Ziemer spectral domain Optical Coherence Tomography (OCT) system is highly specialized for corneal and lens surgery and custom made for the FEMTO Z8 NEO. The OCT imaging provides a live view throughout all stages of the Refractive, Therapeutic and Cataract Procedure.

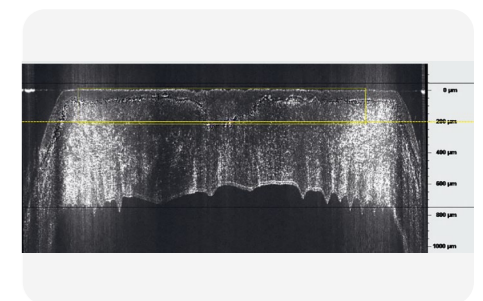
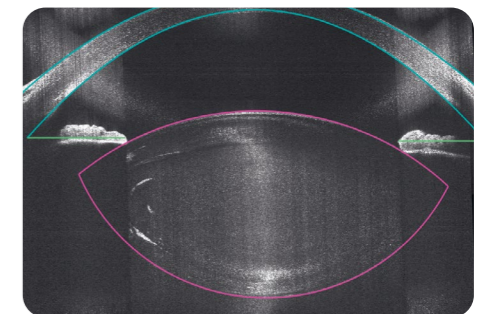
High-Quality TopView Images for Tailormade Surgery

- Better visual control and simplified docking
- Intraoperative imaging between the steps of the cataract pre-treatment
- Automatic resection placement for minimum manual adjustments under vacuum
- Automatic detection of pupil and limbus



Surgical Refinement by OCT Imaging

- Clear visualization of previous resections (e.g. LASIK-flaps or keratoplasties) and scars
- Increased flexibility options for ultra-thin resections of 80 microns or less
- Automatic detection of cornea, lens and iris



An OCT scan allows for a detailed visualization of the corneal tissue (here: corneal scarring)

Applications on Demand

Choose the applications you need today – add more to your laser tomorrow

Surgery	Application Module	Z8 NEO Options
Refractive	Z-LASIK (LASIK Supra)	✓
	CLEAR – Lenticule Extraction (CLEAR Supra)	✓
	Intrastromal Pocket (ISP)	✓
Therapeutic	Intracorneal Rings (ICR)	✓
	Penetrating Keratoplasty (PKP)	✓
	Lamellar Keratoplasty (LKP)	✓
	Liquid Penetrating Keratoplasty (LPK)	✓
	DALK	✓
	Ring Tunnels/Segments	✓
	Arcuate Resection	✓
	Large Tunnel	✓
Cataract (CLARIGS)	Clear Corneal Incisions (CCI)	✓
	Arcuate Incisions (ARC)	✓
	Capsulotomy and Lens Fragmentation	✓
	Toric Marker	✓

Ready for the Future One Complete Surgical Suite

The FEMTO Z8 NEO laser can be connected with our diagnostic device GALILEI and our wet ablation laser AQUARIUZ to create a surgical suite that provides all needs of Refractive, Corneal and Cataract surgeons that will take your practice to the next level.

With the new SUPRA technology, your system is built not only for today's demands but for tomorrow's innovations. It is a long-term investment in performance and longevity, delivering extended life cycle, superior reliability, and the confidence of being ready for whatever comes next.



We Deliver Vision to the World

We strive to empower Ophthalmologists to deliver better vision care to their patients by providing superior surgical and diagnostic tools.

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Disclaimer:

The FEMTO Z8 NEO is CE marked and FDA cleared. CLEAR, Therapeutic Lamella and Pediatric Cataract surgery are CE marked but not yet FDA approved/cleared for use in the United States. For other countries, availability may be restricted due to regulatory requirements. Please contact Ziemer for details.

CLEAR Supra, LASIK Supra, and CLARIGS are marketing names. The officially approved/cleared module names are CLEAR, Z-LASIK, and Z-CATARACT.

Ziemer Ophthalmic Systems AG uses artificial intelligence (AI) to optimize text and media content.

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